

Title (en)

THIN PRINTABLE FLEXIBLE ELECTROCHEMICAL CELL AND METHOD OF MAKING THE SAME

Title (de)

DÜNNE BEDRUCKBARE FLEXIBLE ELEKTROCHEMISCHE ZELLE UND HERSTELLUNGSVERFAHREN DAFÜR

Title (fr)

CELLULE ELECTROCHIMIQUE MINCE, SOUPLE ET IMPRIMABLE, ET SON PROCEDE D'OBTENTION

Publication

EP 1749319 A4 20120523 (EN)

Application

EP 05738396 A 20050421

Priority

- US 2005013783 W 20050421
- US 56395304 P 20040421
- US 60793804 P 20040908
- US 63291304 P 20041203

Abstract (en)

[origin: WO2005106990A2] A thin printed flexible electrochemical cell with a high moisture and oxygen barrier polymer film sealed and folded package featuring a printed cathode deposited on a highly conductive carbon printed cathode collector with a zinc foil anode or printed anode placed adjacent to the cathode. After the cell components are added to the special laminated polymer substrate, the web is processed automatically on a modified high-speed commercial horizontal pouch filling machine to complete the cell assembly process. In this process a starch coated paper separator layer may be inserted over the anode and the cathode, and then the aqueous electrolyte solution is added to the cell. To complete the process, all four edges of the cell are heat sealed to confine the cell components within the cell cavity and each cell is trimmed off the continuous web.

IPC 8 full level

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CPC (source: EP KR US)

H01M 4/06 (2013.01 - EP KR US); **H01M 4/38** (2013.01 - EP KR US); **H01M 4/622** (2013.01 - KR); **H01M 4/66** (2013.01 - EP KR US); **H01M 4/667** (2013.01 - EP KR US); **H01M 4/76** (2013.01 - EP KR US); **H01M 6/40** (2013.01 - EP KR US); **H01M 6/5011** (2013.01 - EP KR US); **H01M 10/0436** (2013.01 - EP KR US); **H01M 50/116** (2021.01 - KR); **H01M 50/124** (2021.01 - KR); **H01M 50/183** (2021.01 - KR); **H01M 50/463** (2021.01 - KR); **H01M 2220/30** (2013.01 - KR); **H01M 2300/0014** (2013.01 - EP KR US); **H01M 2300/0085** (2013.01 - EP KR US); **Y02E 60/10** (2013.01 - EP KR); **Y02P 70/50** (2015.11 - EP KR); **Y10T 29/49115** (2015.01 - US)

Citation (search report)

- [XY] US 4505996 A 19850319 - SIMONTON ROBERT D [US]
- [XY] US 4525439 A 19850625 - SIMONTON ROBERT D [US]
- [XY] US 4554226 A 19851119 - SIMONTON ROBERT D [US]
- See references of WO 2005106990A2

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WO2020180568A1; WO2019143576A1

Designated contracting state (EPC)

AT BE BG CH CY CZ DE DK EE ES FI FR GB GR HU IE IS IT LI LT LU MC NL PL PT RO SE SI SK TR

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